UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Region 6
P.O.Box 3623,Portland,Oregon 97208

DFTM
B. E. Notebook

REPLY TO: 5230 Evaluation

December 1, 1976

DFTM

SUBJECT: 1976 Douglas-fir Tussock Moth Infestations, R-3

TO: The Record

A number of people associated with the USDA Douglas-fir Tussock Moth Program have expressed a need for forested areas infested by the Douglas-fir tussock moth that can be used for tests and studies in 1977.

The only areas located during 1976 which held promise of sufficient test populations are in Region 3 north of Albuquerque, New Mexico. Areas of lower populations are known to exist in other western states but the populations have been found to be too low for testing purposes.

Three area were identified by Region 3 personnel as being worthy of further study.

1. The Sandia Mountain area located on the west slope of Sandia Mountain northeast of Albuquerque.

2. The Los Alamos Canyon area adjacent to the southwest edge of the Los Alamos town area.

3. The Medio Dia Canyon area west of the Bandelier National Monument.

A special task force was assembled in mid-November to examine the three known areas of infestation in New Mexico and determine their suitability for tests and studies.

The task force made up of John Wenz, Walter Salazar from Region 5, Milton Stelzer, C. G. Thompson and Russ Mitchell from PNW Station, and Delbert McCluskey and Galen Trostle from Region 6 all met in Albuquerque on November 19 to make a study of the three areas. The Region 5 people examined the Sandia area, the PNW people looked at the Los Alamos area and Region 6 people covered the Medio Dia infestation.

This report will first summarize the observations made in the three areas and then cover more specifically the observations made in the Medio Dia area.

The number of egg masses found in each of the three areas indicated the 1977 larvae population will cause complete defoliation of the area showing defoliation in 1976.

All three areas are located in the bottom of steep-sided canyons. The Sandia area is in a steep canyon on the slopes of the Sandia Mountains without road acess. Access is either up from the floor of the main valley at 5,000 feet or down from the top of the mountain at 10,000 feet. The Los Alamos area is located in the Los Alamos Canyon. The highway bridge to the town of Los Alamos crosses the canyon over the upper portion of the infestation and a power line crosses the lower portion of the infestation. The infestation is confined to the trees on the north face of the steep canyon between the upper edge of canyon and well traveled road in the bottom. The Medio Dia infestation is in a relatively flat canyon bottom about 800 feet below the mesa top. Host trees in the central portion of each area were completely defoliated in 1976. None of the areas could be recommended for aerial application of any material. Aerial application would be dangerous and difficult. Infested areas could not be subdivided and spray behavior could not be predicted. Individual tree treatment could be done in either the Los Alamos or the Medio Dia. Inaccessibility of the Sandia area would add considerable cost to any studies in that area. Milt Stelzer is interested in using the Medio Dia area for individual tree treatment and Russ Mitchell thought the Los Alamos area could be used for his studies of larvae dispersal.

The specific information on the Medio Dia infestations follows:

The last 3 miles of road access into the infestation is poor. It is rocky and narrow with rather steep sided fords crossing the creek. It is accessible with a short bed 2 X 4 pickup but not by a sedan. A long bed pickup could have trouble at the fords.

The stand in the lower portion of the canyon is almost pure ponderosa pine with some cottonwood and oak along the stream. Some white fir and Douglas-fir begin about 2 miles up the canyon and some egg masses are evident. The amount of host type increased in the next mile but never is greater than about 20 percent of the stems and is usually less. The stand is two storied, made-up mostly of mature tall ponderosa pine with a few large, scattered firs. The understory trees are thin crowned, but there are sufficicient host trees between 40 and 50 feet to provide adequate sampling foliage. There could be a problem of interchange of population from the large trees to the understory sample trees.

Where the host trees are most numerous they have been completely defoliated. Populations are heavy to moderate for about 1/4- to 1/2-mile above the end of the road. The road continues but is blocked by a number of 15 inch to 18 inch oaks cut by beavers.

The canyon's upper edges are probably not much more than 1/2-mile apart and the lower flat bottom area is about 1/4-mile wide. Elevations of the infested area are between 8,000 feet at the canyon rim down to about 6,600 feet at the lower edge of the infestation.

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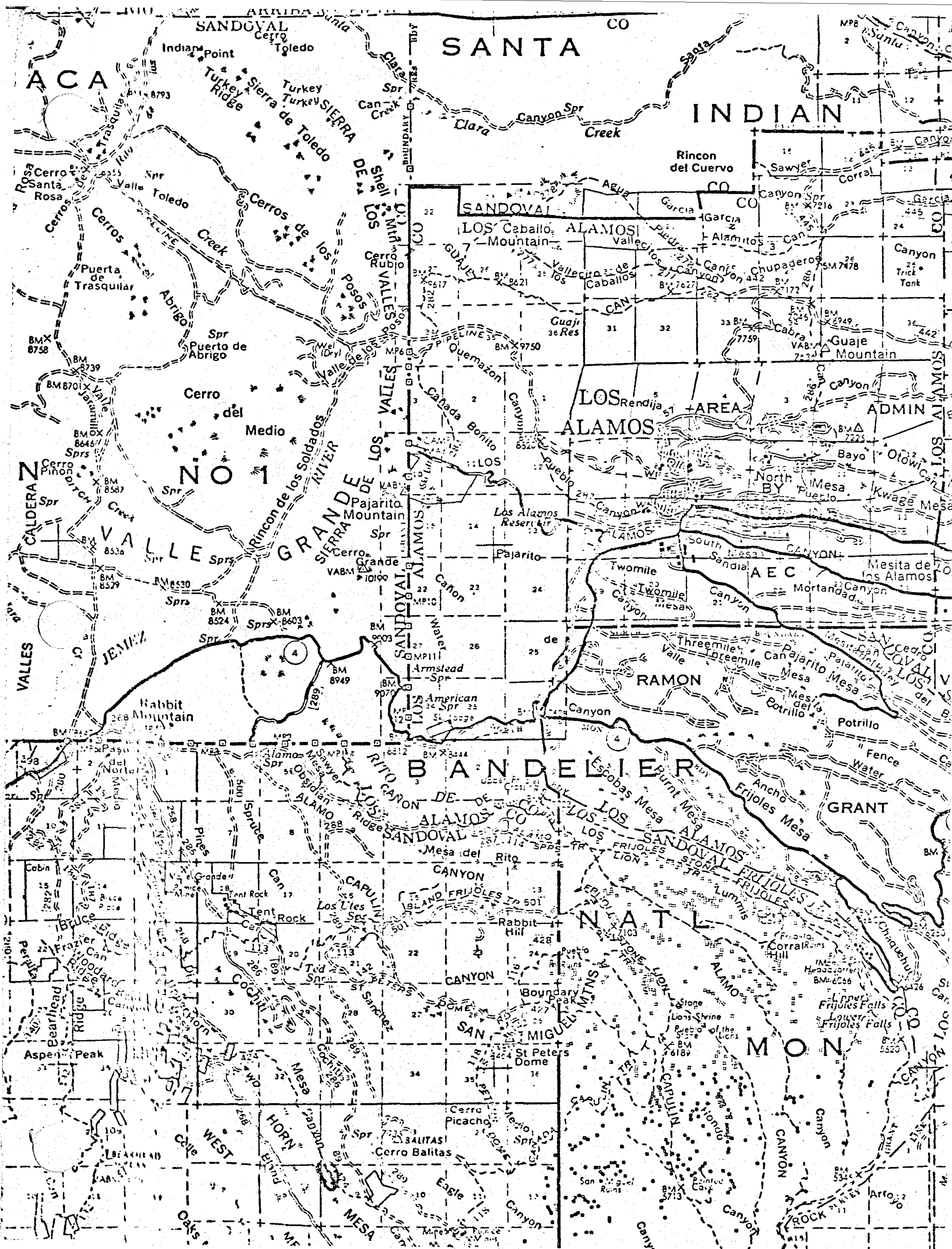

SANDOVAL
SANTA
CO
INDIAN
ACA
Cerro Toledo
Indian Point
Turkey Ridge
Sierra de Toledo
SIERRA DE LOS VALLES
Clara Creek
Canyon Spr
Rincon del Cuervo
Sawyer
Corral
Canyon Spr
Garcia
Cerros de los Posos
Toledo Creek
Cerro Santa Rosa
Puerta de Trasquilar
Abrigo
Puerto de Abrigo
Cerro Rubio
Caballo Mountain
LOS ALAMOS
Guaje Canyon
Chupaderos
Guaje Mountain
Cerro del Medio
NO 1
VALLE
GRANDE
Rincon de los Soldados
RIVER
Pajarito Mountain
Cerro Grande
Quemazon
Canada Bonito
Rendija
LOS ALAMOS AREA
ADMIN
Bayo
Otowi
North Mesa
Pueblo Canyon
Kwage Mesa
Los Alamos Reservoir
Pajarito
South Mesa
Sandia
AEC
Mesita de los Alamos
Twomile Mesa
Mortandad Canyon
Armstead Spr
American Spr
RAMON
Threemile
Pajarito Mesa
Potrillo
Rabbit Mountain
JEMEZ
CALDERA
VALLES
BANDELIER
NATL
MON
Escobas Mesa
Burnt Mesa
Frijoles Mesa
Ancho
Water
Fence
GRANT
RITO CAÑON DE LOS ALAMOS
Obsidian Ridge
Mesa del Rito
CAPULIN CANYON
Los Utes Spr
Tent Rock
Rabbit Hill
Corral Hill
Lummis
Frijoles Falls
Chaquehui
Boundary Peak
SAN MIGUEL MTNS
St Peters Dome
Cochiti
Aspen Peak
Bearhead
Cerro Picacho
Cerro Balitas
Eagle Canyon
WEST HORN
MESA
Arroyo
ROCK